

STATE OF UTAH GENERAL OUTLOOK

May 1, 2004

SUMMARY

The record pace of snowmelt in March slowed during April which becomes a double edged sword. While it's nice to see the snow capped peaks and extend the recreation season, it also extends the snowmelt period which in turn, increases the losses to infiltration, evapotranspiration and sublimation. In general, shorter snowmelt seasons produce more efficient snowmelt conversion to runoff - water that fills reservoirs. Soils become and stay saturated, forcing more overland and shallow subsurface flow and a larger proportion of snowmelt becomes runoff. Thus, if climate stays cool through April and then becomes very warm, the snowmelt period is shortened by 30 to 45 days and more efficient runoff is the result. The longer the snowmelt period, the more melt is lost to all other areas except streamflow. If snowmelt begins in March or even it is abnormally hot in April, it almost always lengthens the snowmelt period instead of condensing it. The result of a longer snowmelt period is greater losses, especially to infiltration and less streamflow. Most streams have had only marginal responses to snowmelt as reservoir storage increased a paltry 4% of capacity statewide. The Sevier River at Hatch is still running only 50% of average flow, having lost 60% of the total snowpack. Lower and mid elevation watersheds have already had peak flows for the year. Higher elevation watersheds will peak soon as snowpacks for the most part will be gone by middle to late May. Snowpacks now range between 38% of average in southeastern Utah to 64% of average on the Sevier River watershed. Precipitation for April ranged from 76% on the Bear to 148% in southeastern Utah, bringing seasonal precipitation, (Oct-Apr) to 89%. Soil moisture remains a concern as there was very little precipitation accumulation prior to the onset of snowpacks. This condition is constantly improving in areas of constant snowmelt and in areas melted out, is declining. Estimates of soil moisture range from 27% of saturation in the upper 24 inches of soil on the Beaver to 80% on the upper Provo. Low reservoir storage is also a concern with total reservoir storage at 49% of capacity, down 6% (321,000 Acre-Feet) from last year. Areas of greatest concern are the Bear and Sevier River basins with current storage of 12% and 31% respectively. Streamflow forecasts range from 7% to 70% of average. Surface Water Supply Indices range from 2% on the Bear River, Sevier and Moab areas to 45% over the western part of the Uintah Basin.

SNOWPACK

May first snowpacks as measured by the NRCS SNOTEL system range from 42% on the Bear to 69% in southwestern Utah. Most areas are comparable to last year. About 50% of SNOTEL sites are currently bare of snow and all but the highest elevations will melt out within 2 weeks at current melt rates. The bright and optimistic side of the snowpack numbers is that we are not even close to the worst May 1 snowpack ever.

PRECIPITATION

Mountain precipitation during April was below to near average in northern Utah (76%-99%). In southern Utah, precipitation ranged from 113% to 148% of average. This brings the seasonal accumulation (Oct-Apr) to 89% of average statewide.

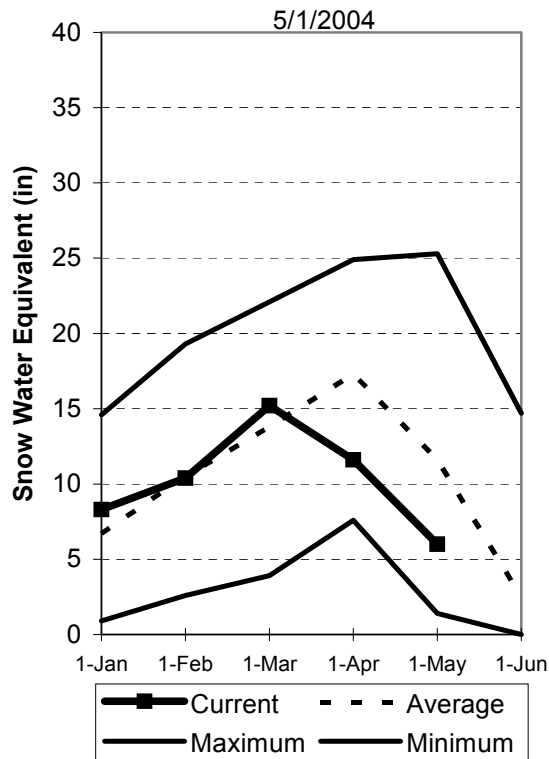
RESERVOIRS

Storage in 41 of Utah's key irrigation reservoirs is at 49% of capacity, up only 4% from last month. This is down (6%) from last year indicating heavy use of reservoir storage to make up the streamflow deficit. Most reservoir operators are utilizing a conservative strategy, storing as much water as possible.

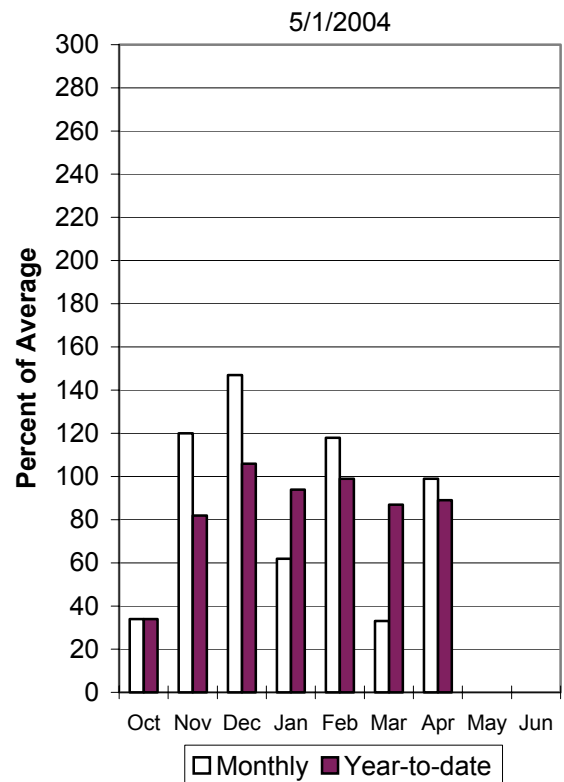
STREAMFLOW

Snowmelt streamflows are expected to be much below average across the entire state of Utah this year. Forecast streamflows range from 7% on the Bear at Stewart dam to 70% on Little Cottonwood Creek. Most flows are forecast to be in the 30% to 50% range and have dropped about 10% from last month. Overall water supply conditions are much below normal.

Mountain Snowpack



Precipitation



Statewide Reservoir Storage

